

**Notice of Allowability**

Application No.

10/059,345

Examiner

Kuen S. Lu

Applicant(s)

CRAIG ET AL.

Art Unit

2167

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment filed 6/23/2006.
2. ☒ The allowed claim(s) is/are 1-15 and 17-25 (renumbered to 1-24).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 8/14/2006.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **DETAILED ACTION**

1. After a thorough search and examination of the present application, in light of the prior art made of record, Applicant's arguments filed June 23, 2006, a telephone interview conducted on August 14, 2006 and Examiner's Amendments made on August 16, 2006, Claims 1-15 and 17-25 (renumbered to 1-24) are allowed.

#### ***Drawings***

2. The Drawings filed on January 31, 2002 are considered in compliance with 37 CFR 1.81 and accepted.

#### ***Examiner's Amendments***

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment, listed below, was given in a telephone interview with Mr. Mathew Zirschka (Registration: 41,575) on August 14, 2006. The interview summary is attached.

3.1. Please amend claims 15, 16-17 and 25 as follow:

15. (Currently Amended): Computer readable storage medium, storing computer executable software, that when loaded at a computing device in communication with a stored plurality of responses, and a plurality of Boolean expression each associated

with one of said responses and to be satisfied by an appropriate query for an associated response, adapt said computing device to:

store a plurality of possible responses;

store a plurality of Boolean expressions, one of said plurality of Boolean expressions associated with each of said plurality of possible responses, each of said plurality Boolean expressions identifying at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided;

receive a text query;

for each of said plurality of possible responses, apply its associated Boolean expression to said received text query to determine if the associated Boolean expression is satisfied by said received text query; and

present at least one of said plurality of possible responses, in response to said determining.

16. (Canceled)

17. (Currently Amended): A method of organizing information comprising:

organizing said information into a plurality of responses;

for a particular one of said responses formulating at least one natural language query to search for said particular one of said responses;

formulating a Boolean expression from said at least one query, said Boolean expression satisfied by said at least one query;

storing on a computer readable storage medium said Boolean expression in association with said particular one of said responses, so that said Boolean expression may later be applied to text representing said query to retrieve said particular one of said responses.

25. (Currently Amended): A computer implemented method of organizing information comprising:

organizing said information into a plurality of answers to possible queries;  
for a particular one of said answers postulating at least one natural language query, to which said particular one of said answers is responsive;  
formulating a Boolean expression from said at least one natural language query, said Boolean expression satisfied by said at least one query;  
storing said Boolean expression in association with said particular one of said answers, so that said Boolean expression may later be applied to text representing said query to retrieve said particular one of said answers.

#### ***Reasons for Allowable***

4. In the Examiner's Office Action for non-Final Rejection of April 21, 2005, 35 U.S.C. 35 U.S.C. § 103, rejections was based on primary reference Ejerhed: U.S. Patent Application Publication 2002/0177991, "METHODS OF FINDING ANSWERS TO QUESTIONS", filed April 3, 2001 and published November 28, 2002; and in view of Cousins et al.: U.S. Patent 6,732,094, "METHOD AND APPARATUS THAT EVALUATE

AN EXPRESSION BASED UPON DATABASE RESULTS", filed July 8, 1998 and issued May 4, 2004, hereafter "Cousins".

In responding to Examiner non-final rejection of December 23, 2005, in the Amendment/Remarks filed June 23, 2006, Applicant argued that the teaching of Ejerhed and Cousins references is fundamentally different from the approach of Applicant's claimed subject matter where Boolean expressions are stored, each Boolean expression is associated with at least one response/answer and it is the stored Boolean expressions that are applied against an input query. Applicant further explained that the Boolean expressions that are applied to the queries may be stored, because possible input queries are anticipated and the Boolean expressions may thus be constructed with knowledge of the anticipated query, and its most likely answer.

After a thorough review of the above consideration, an update search conducted on EAST database and domains (NPL-ACM, Google, NPL-IEEE), and a detailed examination of the search results, Examiner is persuaded that Applicant's arguments are valid and the claimed subject matter of ***storing Boolean expressions, the Boolean expressions are associated with possible responses, each Boolean expressions identifying at least one condition to be satisfied by a text query, to which its associated one of responses is to be provided and its corresponding natural language counterpart***, as presented in each of the independent claims 1, 15, 17,

19 and 25, is not explicitly taught or rendered obvious in prior art made of record or searched.

The dependent claims in the groups (2-14), (18) and (20-24), depending claims 1, 17 and 19, respectively, also distinct from the prior art for the same reason.


5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Kuen S. Lu   
Patent Examiner

August 16, 2006

  
JOHN COTTINGHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100